

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

AS DRILLED

CONFIDENTIAL

RCVD SEP 23 '14

WELL LOCATION AND ACREAGE DEDICATION PLAT

OIL CONS. DIV.
DIST. 3

*API Number 30-043-21226	*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 313649	*Property Name AZTEC OIL SYNDICATE	*Well Number 1H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 7126'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	5	22N	6W	1	939	NORTH	357	EAST	SANDOVAL

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	6	22N	6W	2	990	NORTH	2334	EAST	SANDOVAL

¹² Dedicated Acres 244.67	N/2 N/2 - Section 5 N/2 NE/4 - Section 6	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DISTRICT.

END-OF-LATERAL
990' FNL 2334' FEL
SECTION 6, T22N, R6W
LAT: 36.172866°N
LONG: 107.507167°W
DATUM: NAD1927

POINT-OF-ENTRY
984' FNL 1104' FEL
SECTION 5, T22N, R6W
LAT: 36.172507°N
LONG: 107.485250°W
DATUM: NAD1927

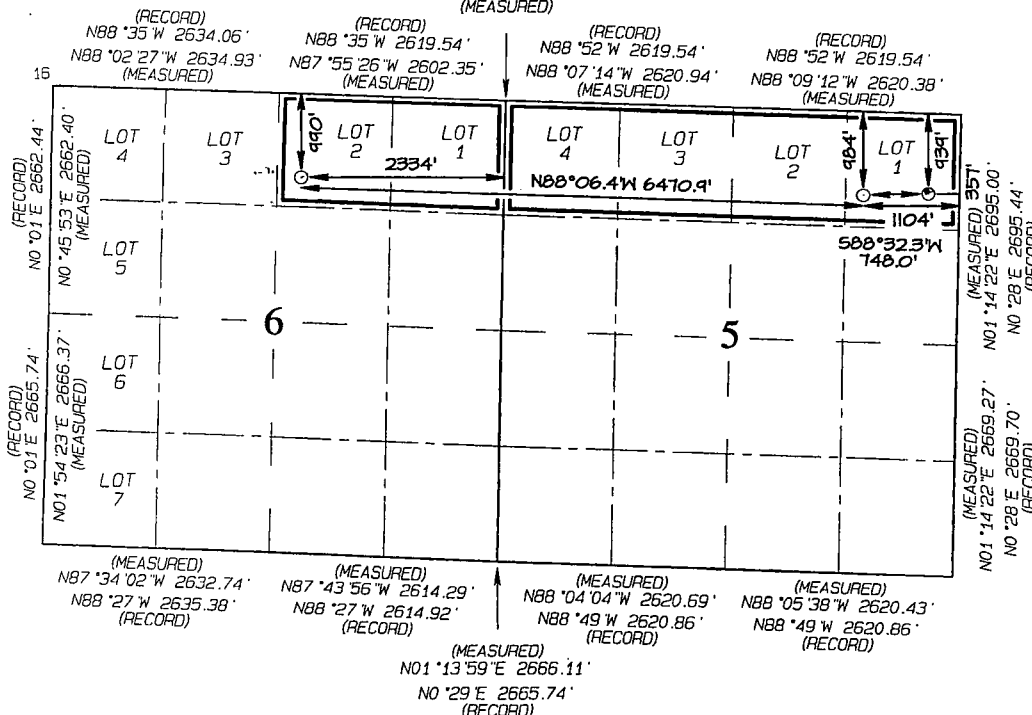
SURFACE LOCATION
939' FNL 357' FEL
SECTION 5, T22N, R6W
LAT: 36.172586°N
LONG: 107.482718°W
DATUM: NAD1927

LAT: 36.172880°N
LONG: 107.507772°W
DATUM: NAD1983

LAT: 36.172522°N
LONG: 107.485855°W
DATUM: NAD1983

LAT: 36.172600°N
LONG: 107.483323°W
DATUM: NAD1983

(RECORD)
N0°29'E 2695.44'
N01°14'25"E 2693.03'
(MEASURED)



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Larry Higgins* Date: 9/22/14

Printed Name: Larry Higgins

larry.higgins@wpxenergy.com

E-mail Address:

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: SEPTEMBER 19, 2014
Date of Survey: MARCH 4, 2014

Signature and Seal of Professional Surveyor



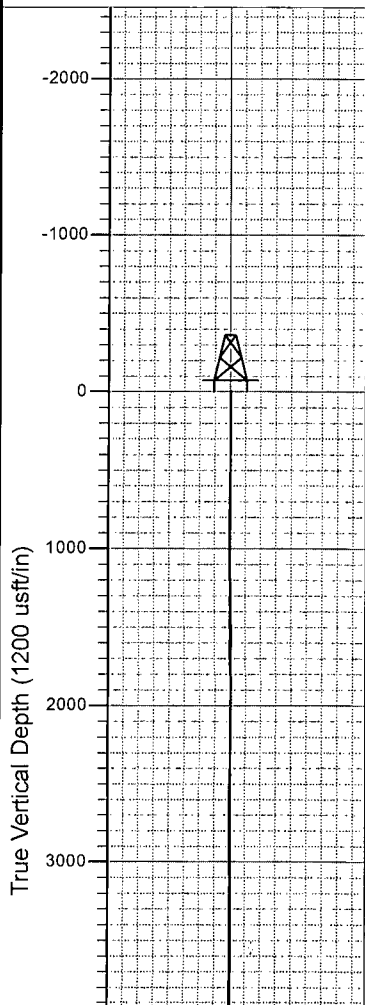
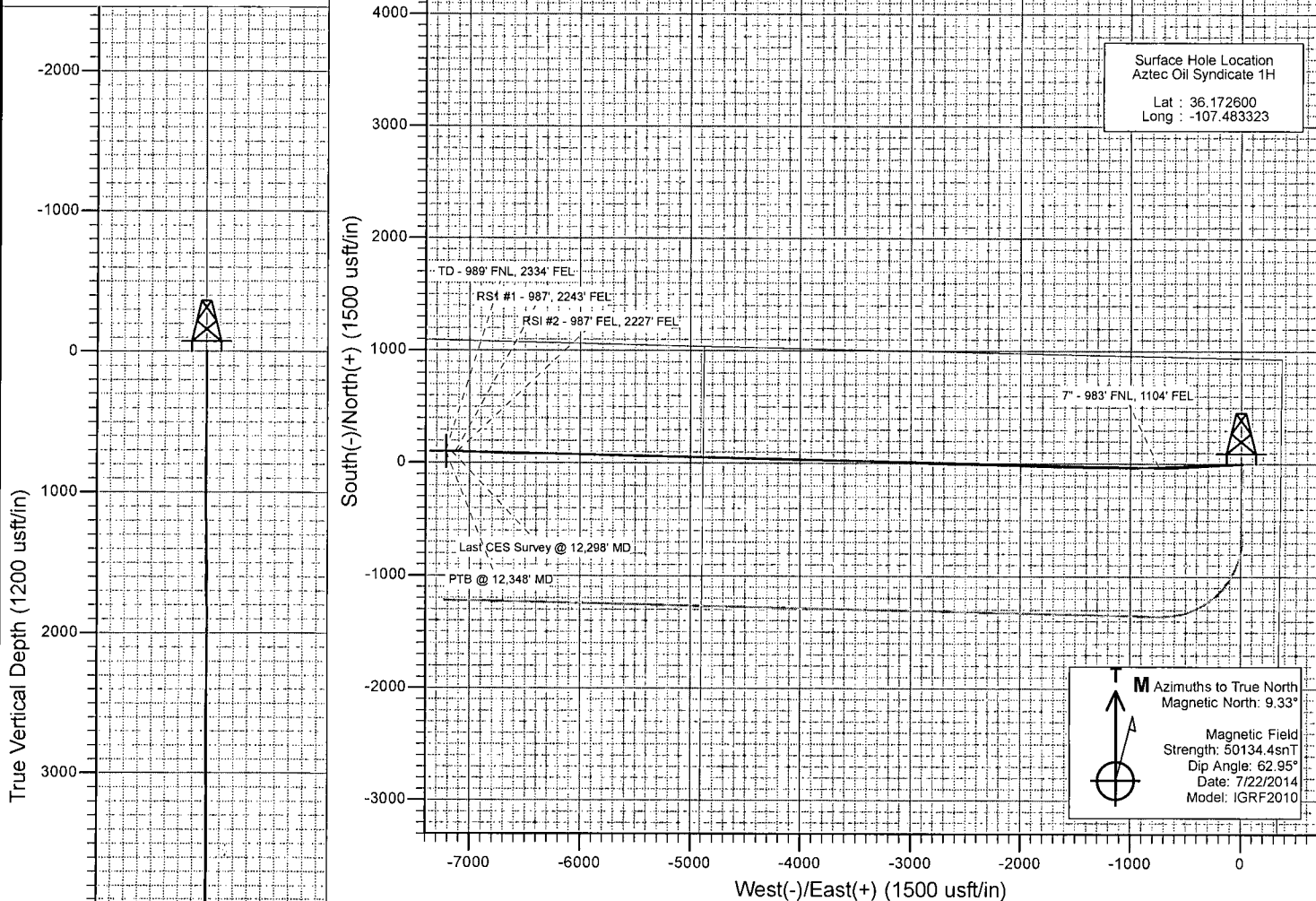
JASON C. EDWARDS
Certificate Number 15269



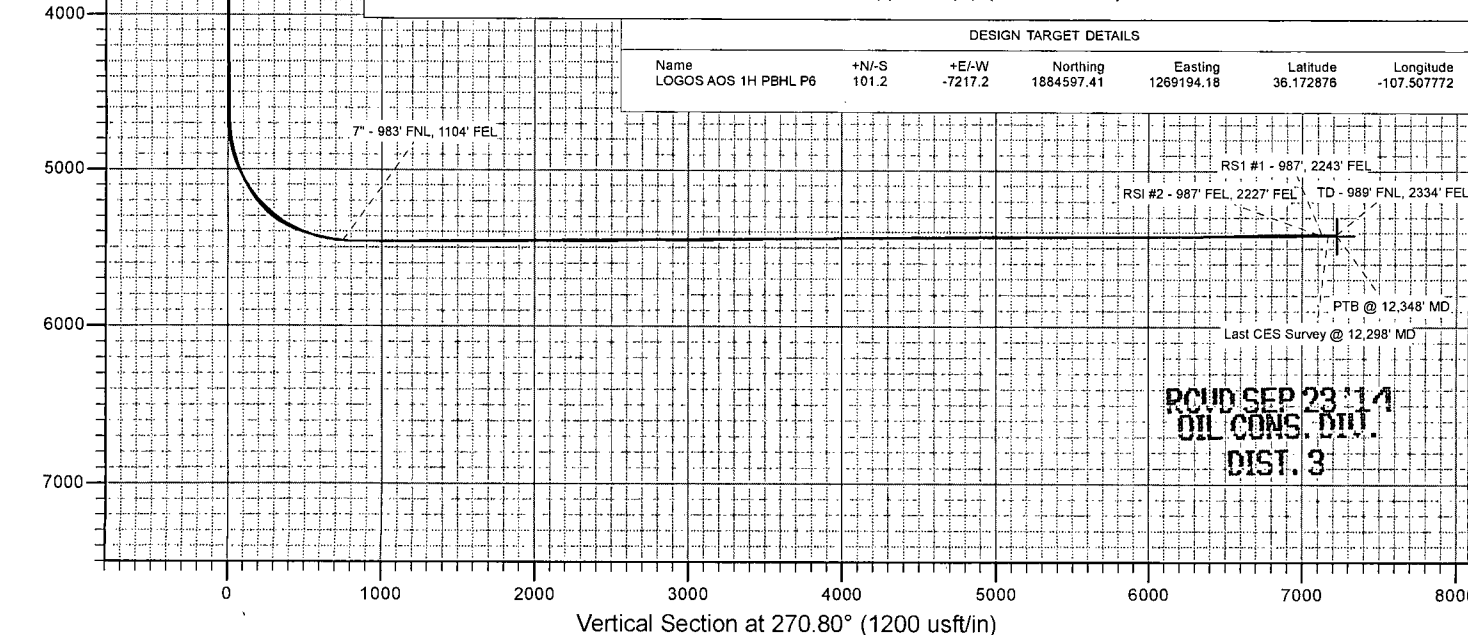
Project: Sandoval County, NM
Site: S5-T22N-R6W
Well: Aztec Oil Syndicate 1H
Wellbore: HZ
Design: FINAL



FINAL
Aztec Oil Syndicate 1H
145245/12637' SC
KB=15' @ 7136.0usft (Original Well Elev)
Ground Elevation @ 7126.0
North American Datum 1983
Well Aztec Oil Syndicate 1H, True North

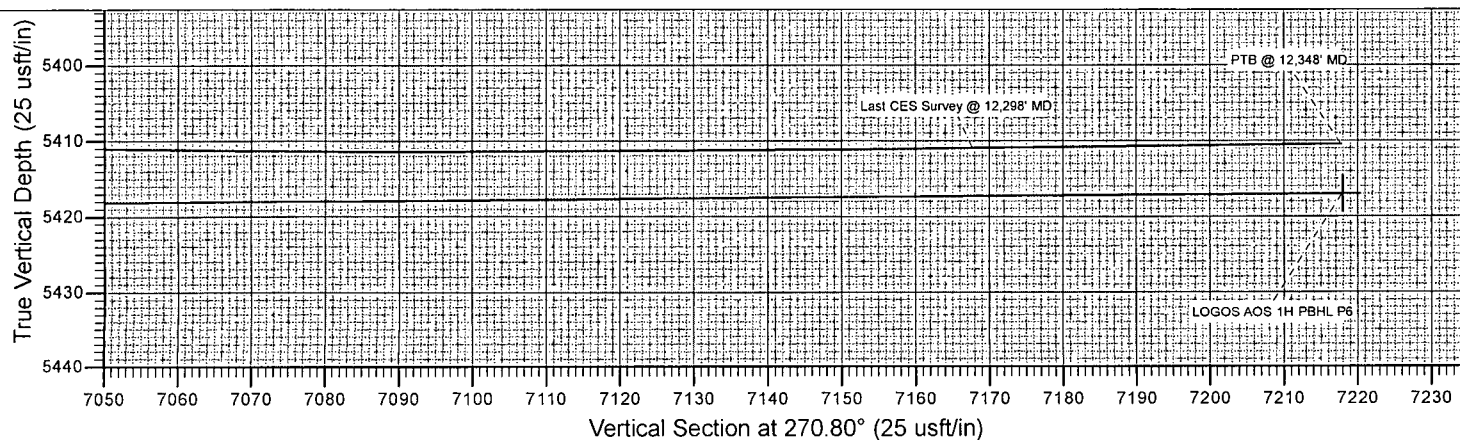
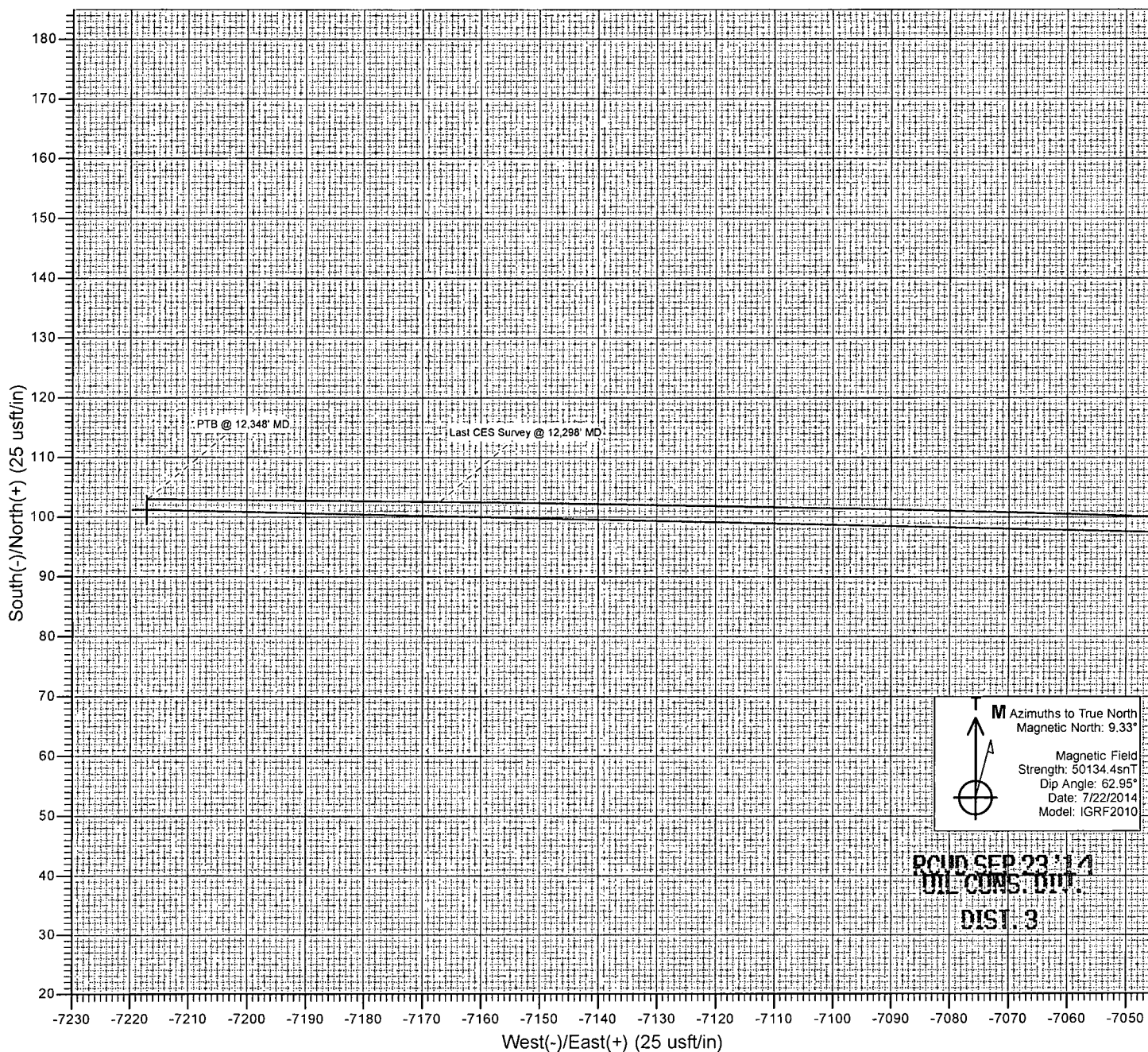


DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LOGOS AOS 1H PBHL P6	101.2	-7217.2	1884597.41	1269194.18	36.172875	-107.507772





Project: Sandoval County, NM
Site: S5-T22N-R6W
Well: Aztec Oil Syndicate 1H
Wellbore: HZ
Design: FINAL



Cathedral Energy Services

Survey Report

Company:	LOGOS Operating LLC	Local Co-ordinate Reference:	Well Aztec Oil Syndicate 1H
Project:	Sandoval County, NM	TVD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Site:	S5-T22N-R6W	MD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Well:	Aztec Oil Syndicate 1H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Sandoval County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site		S5-T22N-R6W			
Site Position:		Northing:	1,883,183.57 usft	Latitude:	36.169247
From:	Lat/Long	Easting:	1,276,424.49 usft	Longitude:	-107.483219
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-0.73 °

Well	Aztec Oil Syndicate 1H					
Well Position	+N/-S	0.0 usft	Northing:	1,884,404.52 usft	Latitude:	36.172600
	+E/-W	0.0 usft	Easting:	1,276,409.48 usft	Longitude:	-107.483323
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	7,126.0 usft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/22/2014	9.33	62.95	50,134

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	270.80	

Survey Program	Date 8/13/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
389.0	12,348.0	Survey #1 (HZ)	ISCWSA MWD	MWD - Standard	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
389.0	0.40	121.60	389.0	-0.7	1.2	-1.2	0.10	0.10	
451.0	0.30	110.10	451.0	-0.9	1.5	-1.5	0.20	-0.16	
512.0	0.50	104.90	512.0	-1.0	1.9	-1.9	0.33	0.33	
573.0	0.50	94.40	573.0	-1.1	2.4	-2.4	0.15	0.00	
634.0	0.50	103.90	634.0	-1.2	2.9	-3.0	0.14	0.00	
694.0	0.50	117.50	694.0	-1.4	3.4	-3.5	0.20	0.00	
756.0	0.70	128.30	756.0	-1.7	4.0	-4.0	0.37	0.32	
817.0	0.60	42.20	817.0	-1.7	4.5	-4.5	1.46	-0.16	
878.0	0.70	44.10	878.0	-1.2	5.0	-5.0	0.17	0.16	
939.0	1.20	349.40	939.0	-0.3	5.1	-5.1	1.61	0.82	
999.0	1.70	344.30	998.9	1.2	4.7	-4.7	0.86	0.83	
1,057.0	1.50	344.60	1,056.9	2.7	4.3	-4.3	0.35	-0.34	

Cathedral Energy Services

Survey Report

Company:	LOGOS Operating LLC	Local Co-ordinate Reference:	Well Aztec Oil Syndicate 1H
Project:	Sandoval County, NM	TVD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Site:	S5-T22N-R6W	MD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Well:	Aztec Oil Syndicate 1H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
1,121.0	1.40	311.90	1,120.9	4.0	3.5	-3.4	1.28	-0.16	
1,182.0	1.90	258.20	1,181.9	4.3	2.0	-1.9	2.55	0.82	
1,244.0	2.00	251.70	1,243.8	3.8	-0.1	0.1	0.39	0.16	
1,305.0	2.00	262.50	1,304.8	3.3	-2.1	2.2	0.62	0.00	
1,366.0	1.70	229.00	1,365.8	2.6	-3.9	3.9	1.81	-0.49	
1,426.0	1.80	215.50	1,425.8	1.2	-5.1	5.1	0.71	0.17	
1,488.0	1.90	219.00	1,487.7	-0.4	-6.3	6.3	0.24	0.16	
1,551.0	1.60	177.70	1,550.7	-2.0	-6.9	6.9	2.01	-0.48	
1,614.0	1.80	159.10	1,613.7	-3.9	-6.5	6.5	0.93	0.32	
1,676.0	1.60	114.90	1,675.6	-5.1	-5.4	5.3	2.08	-0.32	
1,739.0	1.90	66.50	1,738.6	-5.1	-3.7	3.6	2.32	0.48	
1,802.0	2.00	57.00	1,801.6	-4.1	-1.8	1.7	0.54	0.16	
1,864.0	1.40	110.50	1,863.6	-3.7	-0.2	0.1	2.61	-0.97	
1,927.0	1.50	137.40	1,926.5	-4.6	1.1	-1.2	1.08	0.16	
1,992.0	0.30	147.80	1,991.5	-5.4	1.8	-1.9	1.86	-1.85	
2,054.0	0.20	248.60	2,053.5	-5.6	1.8	-1.8	0.63	-0.16	
2,116.0	0.10	237.30	2,115.5	-5.6	1.6	-1.7	0.17	-0.16	
2,179.0	0.50	279.30	2,178.5	-5.6	1.3	-1.4	0.68	0.63	
2,242.0	0.60	272.00	2,241.5	-5.6	0.7	-0.8	0.19	0.16	
2,305.0	0.70	266.00	2,304.5	-5.6	0.0	-0.1	0.19	0.16	
2,368.0	0.90	252.00	2,367.5	-5.8	-0.9	0.8	0.44	0.32	
2,431.0	1.10	298.40	2,430.5	-5.6	-1.9	1.8	1.28	0.32	
2,494.0	1.00	313.40	2,493.5	-5.0	-2.8	2.7	0.46	-0.16	
2,557.0	0.90	288.70	2,556.5	-4.4	-3.7	3.6	0.66	-0.16	
2,620.0	0.90	328.70	2,619.5	-3.8	-4.4	4.3	0.98	0.00	
2,683.0	1.10	335.70	2,682.5	-2.9	-4.9	4.9	0.37	0.32	
2,746.0	1.00	341.10	2,745.5	-1.8	-5.3	5.3	0.22	-0.16	
2,809.0	0.90	339.20	2,808.4	-0.8	-5.7	5.7	0.17	-0.16	
2,872.0	0.60	341.00	2,871.4	0.0	-6.0	6.0	0.48	-0.48	
2,934.0	0.50	339.50	2,933.4	0.5	-6.2	6.2	0.16	-0.16	
2,997.0	0.70	25.50	2,996.4	1.1	-6.1	6.1	0.80	0.32	
3,060.0	0.80	46.50	3,059.4	1.8	-5.6	5.6	0.46	0.16	
3,123.0	0.70	39.50	3,122.4	2.4	-5.0	5.1	0.22	-0.16	
3,186.0	0.70	46.20	3,185.4	2.9	-4.5	4.6	0.13	0.00	
3,249.0	0.70	43.30	3,248.4	3.5	-4.0	4.0	0.06	0.00	
3,311.0	0.70	39.80	3,310.4	4.1	-3.5	3.5	0.07	0.00	
3,374.0	0.40	31.20	3,373.4	4.5	-3.1	3.2	0.49	-0.48	
3,437.0	0.50	31.60	3,436.4	5.0	-2.9	2.9	0.16	0.16	
3,500.0	0.30	26.00	3,499.4	5.3	-2.6	2.7	0.32	-0.32	
3,563.0	0.20	13.50	3,562.4	5.6	-2.5	2.6	0.18	-0.16	
3,625.0	0.01	281.50	3,624.4	5.7	-2.5	2.6	0.32	-0.31	
3,688.0	0.20	267.60	3,687.4	5.7	-2.6	2.7	0.30	0.30	
3,751.0	0.40	315.40	3,750.4	5.9	-2.9	3.0	0.48	0.32	
3,813.0	0.60	332.90	3,812.4	6.3	-3.2	3.3	0.40	0.32	
3,876.0	0.50	311.10	3,875.4	6.8	-3.6	3.7	0.37	-0.16	
3,938.0	0.40	324.00	3,937.4	7.1	-3.9	4.0	0.23	-0.16	
4,000.0	0.40	215.50	3,999.4	7.1	-4.1	4.2	1.05	0.00	
4,063.0	0.50	205.00	4,062.4	6.7	-4.4	4.5	0.21	0.16	
4,126.0	0.50	220.60	4,125.4	6.2	-4.7	4.8	0.22	0.00	
4,189.0	0.60	224.20	4,188.4	5.8	-5.1	5.2	0.17	0.16	
4,252.0	0.80	219.30	4,251.4	5.2	-5.6	5.7	0.33	0.32	
4,315.0	0.80	224.60	4,314.4	4.6	-6.2	6.3	0.12	0.00	
4,378.0	0.90	234.80	4,377.4	4.0	-6.9	7.0	0.29	0.16	

Cathedral Energy Services

Survey Report

Company:	LOGOS Operating LLC	Local Co-ordinate Reference:	Well Aztec Oil Syndicate 1H
Project:	Sandoval County, NM	TVD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Site:	SS-T22N-R6W	MD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Well:	Aztec Oil Syndicate 1H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
4,441.0	0.90	245.10	4,440.4	3.5	-7.8	7.8	0.26	0.00	
4,503.0	0.70	227.70	4,502.4	3.0	-8.5	8.5	0.50	-0.32	
4,566.0	0.60	219.00	4,565.3	2.5	-9.0	9.0	0.22	-0.16	
4,627.0	0.80	195.30	4,626.3	1.8	-9.3	9.3	0.57	0.33	
4,658.0	0.90	199.60	4,657.3	1.4	-9.4	9.4	0.38	0.32	
4,690.0	1.70	236.10	4,689.3	0.9	-9.9	9.9	3.48	2.50	
4,721.0	3.30	250.80	4,720.3	0.3	-11.1	11.1	5.52	5.16	
4,753.0	5.20	262.40	4,752.2	-0.2	-13.4	13.4	6.49	5.94	
4,784.0	7.50	269.60	4,783.0	-0.4	-16.8	16.8	7.84	7.42	
4,815.0	9.80	272.00	4,813.7	-0.3	-21.5	21.5	7.51	7.42	
4,846.0	11.90	273.70	4,844.1	0.0	-27.3	27.3	6.85	6.77	
4,878.0	13.90	273.40	4,875.3	0.5	-34.5	34.5	6.25	6.25	
4,909.0	16.00	270.90	4,905.3	0.8	-42.5	42.5	7.08	6.77	
4,940.0	17.80	267.70	4,934.9	0.6	-51.5	51.5	6.53	5.81	
4,972.0	19.70	266.90	4,965.2	0.1	-61.7	61.7	5.99	5.94	
5,003.0	20.90	267.50	4,994.3	-0.4	-72.5	72.5	3.93	3.87	
5,035.0	22.90	267.20	5,024.0	-0.9	-84.4	84.4	6.26	6.25	
5,066.0	25.40	269.00	5,052.3	-1.3	-97.1	97.0	8.41	8.06	
5,097.0	27.40	271.20	5,080.0	-1.3	-110.9	110.8	7.18	6.45	
5,129.0	28.90	272.40	5,108.2	-0.8	-125.9	125.9	5.01	4.69	
5,160.0	31.40	272.10	5,135.1	-0.2	-141.5	141.5	8.08	8.06	
5,191.0	34.20	272.20	5,161.1	0.4	-158.3	158.3	9.03	9.03	
5,223.0	37.10	272.10	5,187.1	1.1	-176.9	176.9	9.06	9.06	
5,254.0	39.70	271.10	5,211.4	1.6	-196.2	196.2	8.62	8.39	
5,286.0	42.40	270.10	5,235.5	1.9	-217.2	217.2	8.68	8.44	
5,317.0	45.40	269.20	5,257.9	1.7	-238.7	238.7	9.88	9.68	
5,349.0	48.30	267.90	5,279.7	1.1	-262.0	262.0	9.53	9.06	
5,380.0	51.70	266.30	5,299.7	-0.1	-285.7	285.7	11.66	10.97	
5,411.0	55.00	265.70	5,318.2	-1.8	-310.5	310.5	10.76	10.65	
5,443.0	58.70	265.60	5,335.7	-3.9	-337.2	337.1	11.57	11.56	
5,474.0	61.90	266.20	5,351.0	-5.8	-364.1	364.0	10.46	10.32	
5,506.0	64.00	265.60	5,365.6	-7.8	-392.5	392.4	6.77	6.56	
5,537.0	66.40	265.80	5,378.6	-9.9	-420.6	420.4	7.76	7.74	
5,569.0	69.40	266.00	5,390.6	-12.0	-450.1	449.9	9.39	9.37	
5,600.0	71.80	266.20	5,400.9	-14.0	-479.3	479.1	7.77	7.74	
5,632.0	73.20	266.30	5,410.5	-16.0	-509.8	509.5	4.39	4.37	
5,663.0	74.80	266.30	5,419.1	-18.0	-539.5	539.2	5.16	5.16	
5,694.0	76.20	266.50	5,426.8	-19.8	-569.5	569.1	4.56	4.52	
5,726.0	77.60	266.70	5,434.1	-21.7	-600.6	600.2	4.42	4.37	
5,757.0	79.10	266.90	5,440.4	-23.4	-630.9	630.5	4.88	4.84	
5,789.0	80.00	267.30	5,446.2	-25.0	-662.3	661.9	3.07	2.81	
5,820.0	81.30	267.60	5,451.2	-26.3	-692.9	692.4	4.30	4.19	
5,852.0	83.60	267.60	5,455.4	-27.7	-724.6	724.1	7.19	7.19	
5,875.0	84.64	267.75	5,457.8	-28.6	-747.4	746.9	4.56	4.52	7" - 983' FNL, 1104' FEL
5,883.0	85.00	267.80	5,458.5	-28.9	-755.4	754.9	4.56	4.52	
5,905.0	85.60	267.90	5,460.3	-29.7	-777.3	776.8	2.76	2.73	
5,973.0	88.10	268.80	5,464.0	-31.7	-845.1	844.6	3.91	3.68	
6,035.0	91.40	269.00	5,464.3	-32.9	-907.1	906.6	5.33	5.32	
6,098.0	92.20	268.90	5,462.3	-34.0	-970.1	969.5	1.28	1.27	
6,161.0	90.10	269.00	5,461.0	-35.2	-1,033.0	1,032.5	3.34	-3.33	
6,224.0	88.80	270.90	5,461.7	-35.2	-1,096.0	1,095.4	3.65	-2.06	
6,287.0	88.90	270.60	5,462.9	-34.4	-1,159.0	1,158.4	0.50	0.16	
6,350.0	89.80	270.60	5,463.6	-33.7	-1,222.0	1,221.4	1.43	1.43	

Cathedral Energy Services

Survey Report

Company:	LOGOS Operating LLC	Local Co-ordinate Reference:	Well Aztec Oil Syndicate 1H
Project:	Sandoval County, NM	TVD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Site:	S5-T22N-R6W	MD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Well:	Aztec Oil Syndicate 1H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,412.0	90.10	270.70	5,463.7	-33.0	-1,284.0	1,283.4	0.51	0.48	
6,475.0	90.50	270.50	5,463.4	-32.4	-1,347.0	1,346.4	0.71	0.63	
6,538.0	91.00	270.10	5,462.5	-32.1	-1,410.0	1,409.4	1.02	0.79	
6,601.0	90.10	271.50	5,461.9	-31.2	-1,473.0	1,472.4	2.64	-1.43	
6,664.0	89.90	271.00	5,461.9	-29.8	-1,536.0	1,535.4	0.85	-0.32	
6,726.0	89.90	270.50	5,462.0	-29.0	-1,598.0	1,597.4	0.81	0.00	
6,789.0	90.00	271.30	5,462.1	-28.0	-1,661.0	1,660.4	1.28	0.16	
6,852.0	89.70	271.40	5,462.3	-26.5	-1,723.9	1,723.4	0.50	-0.48	
6,915.0	91.00	272.00	5,461.9	-24.6	-1,786.9	1,786.4	2.27	2.06	
6,978.0	91.20	272.00	5,460.7	-22.4	-1,849.9	1,849.4	0.32	0.32	
7,041.0	91.80	271.60	5,459.0	-20.5	-1,912.8	1,912.3	1.14	0.95	
7,103.0	91.40	272.40	5,457.3	-18.3	-1,974.7	1,974.3	1.44	-0.65	
7,166.0	89.30	272.60	5,456.9	-15.6	-2,037.7	2,037.3	3.35	-3.33	
7,229.0	89.20	271.90	5,457.7	-13.1	-2,100.6	2,100.2	1.12	-0.16	
7,292.0	89.80	271.40	5,458.3	-11.3	-2,163.6	2,163.2	1.24	0.95	
7,355.0	90.00	270.30	5,458.4	-10.3	-2,226.6	2,226.2	1.77	0.32	
7,418.0	89.70	268.90	5,458.5	-10.8	-2,289.6	2,289.2	2.27	-0.48	
7,481.0	90.00	270.70	5,458.7	-11.0	-2,352.6	2,352.2	2.90	0.48	
7,544.0	89.80	270.20	5,458.8	-10.5	-2,415.6	2,415.2	0.85	-0.32	
7,607.0	91.20	272.20	5,458.3	-9.2	-2,478.6	2,478.2	3.87	2.22	
7,669.0	91.60	272.10	5,456.8	-6.9	-2,540.5	2,540.1	0.67	0.65	
7,730.0	91.80	271.20	5,454.9	-5.1	-2,601.4	2,601.1	1.51	0.33	
7,792.0	92.40	270.50	5,452.7	-4.2	-2,663.4	2,663.1	1.49	0.97	
7,853.0	90.90	271.00	5,450.9	-3.4	-2,724.4	2,724.0	2.59	-2.46	
7,914.0	89.60	272.60	5,450.7	-1.5	-2,785.3	2,785.0	3.38	-2.13	
7,975.0	89.20	271.80	5,451.3	0.9	-2,846.3	2,846.0	1.47	-0.66	
8,036.0	89.50	271.30	5,452.0	2.5	-2,907.2	2,907.0	0.96	0.49	
8,097.0	89.60	272.90	5,452.5	4.8	-2,968.2	2,968.0	2.63	0.16	
8,158.0	90.70	273.20	5,452.3	8.0	-3,029.1	3,028.9	1.87	1.80	
8,220.0	90.80	272.40	5,451.5	11.0	-3,091.1	3,090.9	1.30	0.16	
8,281.0	90.30	271.50	5,450.9	13.1	-3,152.0	3,151.9	1.69	-0.82	
8,343.0	90.90	272.10	5,450.3	15.1	-3,214.0	3,213.9	1.37	0.97	
8,403.0	91.10	271.80	5,449.2	17.1	-3,273.9	3,273.9	0.60	0.33	
8,465.0	91.30	271.10	5,447.9	18.7	-3,335.9	3,335.8	1.17	0.32	
8,526.0	91.20	270.50	5,446.6	19.5	-3,396.9	3,396.8	1.00	-0.16	
8,587.0	90.00	271.10	5,445.9	20.4	-3,457.9	3,457.8	2.20	-1.97	
8,649.0	89.60	270.90	5,446.2	21.5	-3,519.9	3,519.8	0.72	-0.65	
8,710.0	90.60	271.90	5,446.0	22.9	-3,580.8	3,580.8	2.32	1.64	
8,770.0	91.30	271.80	5,445.1	24.9	-3,640.8	3,640.8	1.18	1.17	
8,831.0	91.30	271.00	5,443.7	26.4	-3,701.8	3,701.8	1.31	0.00	
8,892.0	91.30	270.20	5,442.3	27.0	-3,762.7	3,762.8	1.31	0.00	
8,953.0	91.50	270.00	5,440.8	27.1	-3,823.7	3,823.7	0.46	0.33	
9,014.0	92.20	269.30	5,438.8	26.7	-3,884.7	3,884.7	1.62	1.15	
9,077.0	91.90	270.70	5,436.6	26.7	-3,947.7	3,947.6	2.27	-0.48	
9,140.0	89.70	272.40	5,435.7	28.4	-4,010.6	4,010.6	4.41	-3.49	
9,203.0	90.00	272.10	5,435.9	30.9	-4,073.6	4,073.6	0.67	0.48	
9,265.0	90.50	271.50	5,435.6	32.9	-4,135.5	4,135.6	1.26	0.81	
9,328.0	91.40	271.20	5,434.5	34.3	-4,198.5	4,198.6	1.51	1.43	
9,392.0	90.20	272.00	5,433.6	36.1	-4,262.5	4,262.6	2.25	-1.87	
9,455.0	90.70	271.50	5,433.2	38.1	-4,325.4	4,325.6	1.12	0.79	
9,517.0	91.60	271.00	5,431.9	39.4	-4,387.4	4,387.5	1.66	1.45	
9,580.0	90.00	271.60	5,431.0	40.8	-4,450.4	4,450.5	2.71	-2.54	
9,643.0	90.30	271.30	5,430.9	42.4	-4,513.4	4,513.5	0.67	0.48	

Cathedral Energy Services

Survey Report

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Project:	Sandoval County, NM	TVD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Site:	S5-T22N-R6W	MD Reference:	KB=15' @ 7136.0usft (Original Well Elev)
Well:	Aztec Oil Syndicate 1H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
9,706.0	89.60	272.00	5,430.9	44.3	-4,576.3	4,576.5	1.57	-1.11	
9,769.0	90.10	271.40	5,431.1	46.1	-4,639.3	4,639.5	1.24	0.79	
9,832.0	90.90	271.00	5,430.5	47.4	-4,702.3	4,702.5	1.42	1.27	
9,894.0	91.90	270.60	5,429.0	48.3	-4,764.3	4,764.5	1.74	1.61	
9,957.0	90.00	271.70	5,428.0	49.6	-4,827.2	4,827.5	3.48	-3.02	
10,020.0	89.50	271.50	5,428.3	51.3	-4,890.2	4,890.5	0.85	-0.79	
10,083.0	90.40	271.40	5,428.3	52.9	-4,953.2	4,953.5	1.44	1.43	
10,146.0	91.00	270.90	5,427.5	54.2	-5,016.2	5,016.4	1.24	0.95	
10,209.0	89.20	272.00	5,427.4	55.8	-5,079.2	5,079.4	3.35	-2.86	
10,272.0	89.00	271.30	5,428.4	57.6	-5,142.1	5,142.4	1.16	-0.32	
10,335.0	89.80	270.80	5,429.1	58.7	-5,205.1	5,205.4	1.50	1.27	
10,397.0	90.50	270.10	5,428.9	59.2	-5,267.1	5,267.4	1.60	1.13	
10,460.0	91.30	269.80	5,427.9	59.2	-5,330.1	5,330.4	1.36	1.27	
10,522.0	90.00	271.70	5,427.2	60.0	-5,392.1	5,392.4	3.71	-2.10	
10,584.0	89.30	271.80	5,427.6	61.9	-5,454.1	5,454.4	1.14	-1.13	
10,647.0	90.00	271.50	5,428.0	63.7	-5,517.0	5,517.4	1.21	1.11	
10,709.0	90.30	271.20	5,427.8	65.2	-5,579.0	5,579.4	0.68	0.48	
10,773.0	90.80	270.80	5,427.2	66.3	-5,643.0	5,643.4	1.00	0.78	
10,836.0	91.40	270.20	5,426.0	66.8	-5,706.0	5,706.4	1.35	0.95	
10,898.0	89.80	272.10	5,425.3	68.1	-5,768.0	5,768.3	4.01	-2.58	
10,961.0	89.10	272.70	5,426.0	70.7	-5,830.9	5,831.3	1.46	-1.11	
11,024.0	89.50	272.40	5,426.7	73.5	-5,893.8	5,894.3	0.79	0.63	
11,087.0	90.20	271.90	5,426.9	75.9	-5,956.8	5,957.3	1.37	1.11	
11,150.0	91.00	271.20	5,426.2	77.6	-6,019.8	6,020.3	1.69	1.27	
11,213.0	91.40	270.60	5,424.9	78.6	-6,082.7	6,083.2	1.14	0.63	
11,276.0	90.10	271.40	5,424.1	79.7	-6,145.7	6,146.2	2.42	-2.06	
11,339.0	89.80	271.20	5,424.1	81.1	-6,208.7	6,209.2	0.57	-0.48	
11,402.0	90.20	270.90	5,424.1	82.3	-6,271.7	6,272.2	0.79	0.63	
11,465.0	91.10	270.60	5,423.4	83.1	-6,334.7	6,335.2	1.51	1.43	
11,527.0	91.50	269.80	5,422.0	83.3	-6,396.7	6,397.2	1.44	0.65	
11,590.0	92.10	269.40	5,420.0	82.9	-6,459.6	6,460.2	1.14	0.95	
11,653.0	92.50	269.00	5,417.5	82.0	-6,522.6	6,523.1	0.90	0.63	
11,716.0	92.60	270.50	5,414.7	81.7	-6,585.5	6,586.0	2.38	0.16	
11,779.0	90.90	272.70	5,412.8	83.5	-6,648.4	6,648.9	4.41	-2.70	
11,841.0	90.50	272.80	5,412.0	86.4	-6,710.4	6,710.9	0.67	-0.65	
11,904.0	91.60	272.90	5,410.9	89.6	-6,773.3	6,773.9	1.75	1.75	
11,967.0	90.60	272.60	5,409.7	92.6	-6,836.2	6,836.8	1.66	-1.59	
12,030.0	90.80	271.70	5,408.9	94.9	-6,899.1	6,899.8	1.46	0.32	
12,093.0	89.10	272.00	5,408.9	97.0	-6,962.1	6,962.8	2.74	-2.70	
12,156.0	88.20	272.30	5,410.4	99.3	-7,025.0	7,025.7	1.51	-1.43	
12,219.0	90.00	271.20	5,411.4	101.3	-7,088.0	7,088.7	3.35	2.86	
12,240.6	90.17	271.06	5,411.4	101.7	-7,109.6	7,110.3	1.03	0.81	RSI #2 - 987' FEL, 2227' FEL
12,257.3	90.31	270.95	5,411.3	102.0	-7,126.3	7,127.0	1.03	0.81	RSI #1 - 987', 2243' FEL
12,281.0	90.50	270.80	5,411.2	102.4	-7,150.0	7,150.7	1.03	0.81	
12,298.0	90.60	270.50	5,411.0	102.5	-7,167.0	7,167.7	1.86	0.59	Last CES Survey @ 12,298' MD
12,348.0	90.60	270.50	5,410.5	103.0	-7,217.0	7,217.7	0.00	0.00	PTB @ 12,348' MD - TD - 989' FNL, 2334' FEL